

and Fraser magnolia (*Magnolia fraseri*). The understory of these communities is characterized by a dense layer of shrubs such as rosebay rhododendron (*Rhododendron maximum*) and low, dense patches of dog-hobble (*Leucothoe fontanesiana*). The dense shrub layer precludes herbs in many areas, although many cove species occur in openings. These include many of the herbs of rich cove areas, as well as species such as partridgeberry (*Mitchella repens*), indian cucumber-root (*Medeola virginiana*), and black snakeroot (*Ageratina altissima*), as well as the uncommon dwarf rattlesnake orchid (*Goodyera repens*), autumn coral-root (*Corallorhiza odontorhiza*), small spreading pogonia (*Cleistes bifaria*), and Appalachian gentian (*Gentiana austromontana*).

The rare diana fritillary butterfly (*Speyeria diana*) is documented from various locations across the site, often from sunny forest openings. Black bears are known to frequent the site. Other animals that benefit from large undisturbed blocks of habitat or forest interior conditions, such as bobcats, forest interior bird species, or the rare timber rattlesnake are almost certainly present in the site.

**MANAGEMENT AND PROTECTION:** The site was previously managed as a water supply watershed for the City of Morganton and now constitutes about half of South Mountains State Park. The southern half of the site is a Dedicated State Nature Preserve managed by the N.C. Division of Parks and Recreation. Dedication as a nature preserve is intended for the northern half of the site. Most of this site was logged during the last century, and some local heavy logging took place in the 1960s. The site now supports maturing forests in most areas. Access to the site is by trails through the park. Monitoring for invasive, non-native species such as japanese grass (*Microstegium vimineum*), princess tree (*Paulownia tomentosa*), and tree-of-heaven (*Ailanthus altissima*), is needed especially in areas where disturbance occurs. Prescribed burning is needed to maintain Pine--Oak/Heath communities and associated rare plant species. Post-burn monitoring to detect invasion by the aggressive, non-native princess tree (*Paulownia tomentosa*) may be very important to the long-term composition and integrity of the ecosystem. Control of feral hogs may be needed to protect certain plant populations, including the rare sweet white trillium and small whorled pogonia, from foraging. Lands bordering the site on the south are included in the South Mountains Game Land managed by N.C. Wildlife Resources Commission.

**NATURAL COMMUNITIES:** Chestnut Oak Forest, Acidic Cove Forest, Rich Cove Forest, Pine--Oak/Heath.

**RARE PLANTS:** shale-barren blazing star (*Liatris turgida*), yellow honeysuckle (*Lonicera flava*), ash-leaved golden-banner (*Thermopsis fraxinifolia*), sweet pinesap (*Monotropsis odorata*), sweet white trillium (*Trillium simile*), small whorled pogonia (*Isotria medeoloides*), lance-leaf moonwort (*Botrychium lanceolatum* var. *angustisegmentum*), daisy-leaf moonwort (*Botrychium matricariifolium*), blunt-lobed grape fern (*Botrychium oneidense*).